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# Sonifying the Universe in Quest for Life 2.0: New Tools for Research and Outreach

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## Abstract

Sonifying planetary transits and the possible chemical contents of exoplanetary atmospheres; ALMA's public 'Soundbank' of molecular data from new star birthing regions; discerning harmonic resonances between planets in distant solar systems; and Kepler Space Telescopes' "Stellar Choir", demonstrating with a unique soundscape, playable by the inquirer, the location of known exoplanetary systems: All of these are now offering sonified data for a unique encounter with exo-planetary science both by the public and research scientists, seeking insights about the universe beyond the visible spectrum. We have found new scientific information about the solar corona from sonified data which the ear could discern though invisible to the eye. Sonification is opening an entirely new window for communication with the public, students and our understanding of the universe. It is providing those who are visually impaired the ability to explore astronomy, experience it, and as well to become astrophysicists. This presentation explores some of the unique things being done at this frontier for outreach, blending culture and science, and the quest for other life in the cosmos.

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